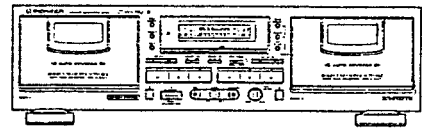
PIONEER®
The Art of Entertainment

Service Manual



• The above illustration shows CT-W803RS.

ORDER NO.
RRV1132

The chapter 1 of this Service Manual will not be reprinted. On your additional orders, we may supply only the chapter 2. For the chapter 1, please make copies and attach to the chapter 2 at your side if necessary.

STEREO DOUBLE CASSETTE DECK

CT-W703RS

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	The voltage can be converted by the following method.
	CT-W703RS		
KUXJ	O	AC120V	———
KCXJ	O	AC120V	———
HEMXJ	O	AC220 – 230V	AC230 – 240V, *
HEM	O	AC220 – 230V	AC230 – 240V, *

* : Alter the wiring of the Power-supply block at the primary winding of power transformer referring to the "Line Voltage Selection" described in Service Manual.

CONTENTS

CHAPTER1

1.1 SAFETY INFORMATION ····· 1-2
1.2 SPECIFICATIONS ····· 1-3
1.3 PANEL FACILITIES ····· 1-4
1.4 TEST MODE ····· 1-5
1.5 ADJUSTMENTS ····· 1-7
1.6 PARTS LIST FOR EXPLODED VIEWS AND PACKING ····· 1-11
1.7 PCB PARTS LIST ····· 1-13

CHAPTER2

2.1 EXPLODED VIEWS AND PACKING ····· 2-3
2.2 BLOCK DIAGRAM ····· 2-7
2.3 SCHEMATIC DIAGRAMS ····· 2-8
2.4 PCB CONNECTION DIAGRAM ····· 2-13

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T – SSG APR. 1994 Printed in Japan

CHAPTER 1

1.1 SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).
When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

NOTICE
(FOR CANADIAN MODEL ONLY)
Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

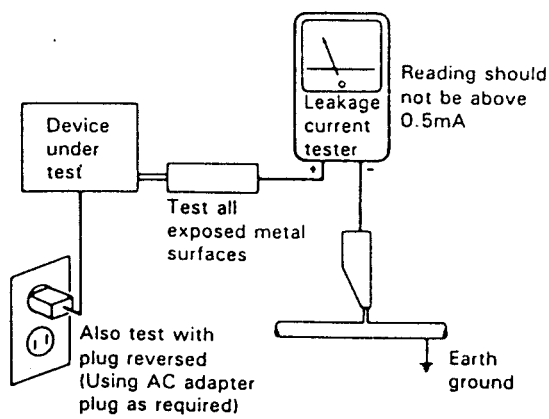
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.


Reading should not be above 0.5mA
Leakage current tester
Device under test
Test all exposed metal surfaces
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

1.2 SPECIFICATIONS

System ..... 4-track, 2-channel stereo
Heads
CT-W803RS/CT-W703RS ..... "Hard Permalloy" recording/playback head × 2
"Ferrite" erasing head × 2
CT-W603RS..... "Hard Permalloy" recording/playback head × 1
"Hard Permalloy" playback head × 1
"Ferrite" erasing head × 1
Motor ..... DC servo motor × 2
Wow and Flutter ..... 0.1% (WRMS)
Fast Winding Time ..... Approximately 100 seconds (C-60 tape)

Frequency Response
−20 dB recording:
CT-W803RS/CT-W703RS
TYPE IV (Metal) tape ..... 20 to 20,000 Hz
TYPE II (High/CrO_2) tape ..... 20 to 19,000 Hz
TYPE I (Normal) tape ..... 20 to 18,000 Hz
CT-W603RS
TYPE IV (Metal) tape ..... 20 to 16,500 Hz
TYPE II (High/CrO_2) tape ..... 20 to 16,000 Hz
TYPE I (Normal) tape ..... 20 to 16,000 Hz
Signal-to-Noise Ratio
Dolby NR OFF ..... More than 57 dB
Noise Reduction Effect
Dolby B-type NR ON ..... More than 10 dB (at 5 kHz)
Dolby C-type NR ON ..... More than 19 dB (at 5 kHz)
Dolby S-type NR ON ..... More than 22 dB (at 5 kHz)
Harmonic Distortion ..... No more than 0.8% (at −4 dB: 160 nwb/m)

Input (Sensitivity)
LINE (INPUT) ..... 100 mV (Input impedance 68 kΩ)
MIC ..... 0.63 mV
(CT-W803RS/CT-W703RS: U.S. and Canadian model only)
Output (Reference level)
LINE (OUTPUT) ..... 0.5 V (Output impedance 1.9 kΩ)
Headphones ..... 0.63 mW (Load impedance 8 Ω)

Subfunctions

- Super AUTO BLE tuning system (CT-W803RS/CT-W703RS)
- AUTO BLE tuning system (CT-W603RS)
- Automatic reverse
- Double recording/playback reverse (CT-W803RS/CT-W703RS)
- DOLBY HX PRO recording function
- DOLBY B/C/S type NR
- Relay recording (CT-W803RS/CT-W703RS)
- Parallel recording (CT-W803RS only)
- Music search over ±15 selections
- Synchronized copy start
- High-speed and normal-speed copy (Deck I — Deck II)
- Relay playback/blank skip
- CD•DECK SYNCHRO recording capability
- Peak level meter with peak-hold function
- MPX FILTER (Interlocks with DOLBY NR switch) (CT-W803RS/CT-W703RS)
- Automatic space recording mute
- Automatic tape selector
- SR System remote control available (CT-W703RS/CT-W603RS only)
- 2-mode electronic 4-digit twin tape counter
- Michrophone jack (CT-W803RS/CT-W703RS: U.S. and Canadian model only)
- Headphone jack
- Wireless remote control operation (CT-W803RS: UK model only)
- Flex system

Miscellaneous

Power Requirements
U.S., Canadian models ..... AC 120 V, 60 Hz
U.K. model ..... AC 230—240 Volts~, 50/60 Hz

Power Consumption
CT-W803RS 24W
CT-W703RS/CT-W603RS 19W
Dimensions ..... 420(W) × 125(H) × 250(D) mm
16-1/2 (W)×4-7/8 (H)×9-13/16 (D) in.
Weight (without package)
CT-W803RS/CT-W703RS ..... 4.2 kg (9 lb 4 oz.)
CT-W603RS ..... 4.1 kg (9 lb 2 oz.)

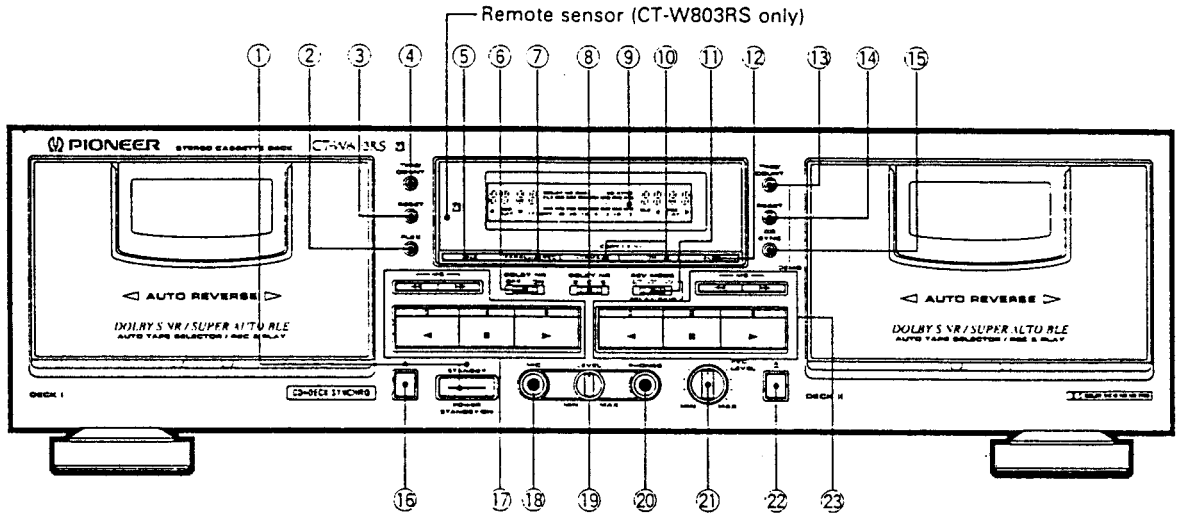
Accessories

Operating instructions 1
Connection cord with pin plugs 2
SR Remote control cord (CT-W703RS/CT-W603RS only) 1
CD•DECK SYNCHRO control cord 1
Remote control unit (CT-W803RS: UK model only) 1
Dry cell batteries (size AAA IEC R03/UM-4)
(CT-W803RS: UK model only) 2

NOTE:
Specifications and design subject to possible modifications without notice, due to improvements.

1.3 PANEL FACILITIES

The illustration shows model CT-W803RS.



① **POWER STANDBY/ON switch/indicator**
The POWER switch activates the secondary transformer only. Even when the switch is in the STANDBY position, there will be a power flow to the deck's circuits as long as the power cord is connected to a power outlet.

② **FLEX button**

③ **DECK I counter reset button (RESET)**

④ **DECK I counter mode button (TIME/COUNT)**

⑤ **DECK I BLE button (Except for CT-W603RS)**

⑥ **DOLBY NR ON/OFF switch**

⑦ **(CT-W803RS only) Parallel recording button (PARALLEL REC)**
(CT-W603RS only) Synchro copy button (COPY I ▶ II)
Normal: Normal speed copy

⑧ **DOLBY* NR switch (B/C/S)**

*
- *Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang & Olufsen.*
- *"DOLBY", the double-D symbol ⊡⊡ and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.*

⑨ **Function display**

⑩ **(CT-W803RS/CT-W703RS) Synchro copy buttons (COPY I ▶ II)**
NORMAL : Normal speed copy
HIGH : Double speed copy
(CT-W603RS only) Synchro copy button (COPY I ▶ II)
HIGH: Double speed copy
DECK II BLE button

⑪ **Reverse mode switch (REV MODE RELAY/SKIP)**

⑫ **DECK II BLE button (CT-W803RS/CT-W703RS)**

⑬ **DECK II counter mode button (TIME/COUNT)**

⑭ **DECK II counter reset button (RESET)**

⑮ **CD•DECK SYNCHRO recording button (CD SYNC)**

⑯ **DECK I eject button (⏏)**
- If the tape is moving (recording, playback, tape winding, etc.), press the stop (■) button before pressing this button.

NOTE:
If the power is turned off while the tape is moving, the cassette door may remain locked. In this case, turn the power on before pressing the eject (⏏) button.

⑰ **Deck I operation buttons**
◀ : Reverse playback
▶ : Forward playback
◀◀/MS : Fast reverse/music search
■ : Stop
▶▶/MS : Fast forward/music search
[Except for CT-W603RS]
O : Recording mute
II : Pause
● : Recording

⑱ **Microphone jack (MIC) (CT-W803RS/CT-W703RS (U.S. and Canadian models only))**

⑲ **MIC LEVEL control (CT-W803RS/CT-W703RS (U.S. and Canadian models only))**

⑳ **Headphones jack (PHONES)**

㉑ **Recording level control (REC LEVEL)**

㉒ **DECK II eject button (⏏)**
- If the tape is moving (recording, playback, tape winding, etc.), press the stop (■) button before pressing this button.

NOTE:
If the power is turned off while the tape is moving, the cassette door may remain locked. In this case, turn the power on before pressing the eject (⏏) button.

㉓ **DECK II operation buttons**
◀ : Reverse playback
▶ : Forward playback
◀◀/MS : Fast reverse/music search
■ : Stop
▶▶/MS : Fast forward/music search
O : Recording mute
II : Pause
● : Recording

1.4 TEST MODE

Entering the Test Mode

To enter the test mode, set both DECK I and DECK II into the STOP mode and press the TIME/COUNT key of DECK I, RESET key of DECK I and PAUSE key of DECK II all together.
To change the MODE NO., press the STOP key so that the MODE NO. becomes 0 and enter other modes.

Exiting the Test Mode

To exit the test mode, press the RESET key of DECK I or turn off the power.

MODE NO.	DECK I Display	DECK II Display	Key Input	Adjustment and Check
0	–	0	STOP FWD REV FF REW REC PAUSE MUTE X1COPY X2COPY	● The mechanism will operate even in the "no-half" state only for this mode. ● Tape speed adjustment mode • During play (except during the assist), the speed can be doubled by pressing the FAST key (FF or REW key of DECK I or II). During double speed play, the play can be returned to normal speed by pressing the FWD or REV key. ● Auto-stop check • The RELAY mode will be turned on forcibly. But the REC is not relayed from DECK II to DECK I. • Auto stop is carried out at tape end for one second only in this mode. (Usually four seconds.) • Reverse is carried out as normally, but if the reverse is carried out in double speed, the tape will be played at constant speed.

CD SYNCHRO, SW check Modes

MODE NO.	Deck I Display	Deck II Display	Key Input	LINE MUTE	REC MUTE	BIAS	Adjustment and Check
1	–	1	CD SYNC	ON	ON	OFF	● CD SYNCHRO Check If a cord whose input/output is short-circuited is connected, "CD SYNC" will light upwhen a key is input.
1	–	1	1-CTR MODE	ON	ON	OFF	● SW Check (NORMAL) • When there is no-half, the corresponding counter will display "HALF". • Mistaken Erasure Detection Check When FWD recording is possible : "►" lights up When REV recording is possible : "◄" lights up • Timer SW Check • Reverse SW Check ⇄ : "I" ⇆ (REPEAT) : "II" • Tape Detection Check Deck II Check NORMAL : Lch +3dB lights up Rch +3dB lights up CR02 : Lch +3dB goes off Rch +3dB lights up METAL : Lch +3dB goes off Rch +3dB goes off DECK I Check NORMAL : Lch –20dB lights up Rch –20dB lights up CR02 : Lch –20dB goes off Rch –20dB lights up METAL : Lch –20dB goes off Rch –20dB goes off

BLE Adjustment Mode

● Entering the BLE Adjustment Mode

Set the MODE NO. to 0 and press the BLE keys of DECK I and DECK II. Both decks will set into the BLE adjustment mode in order.

● Exiting the BLE Adjustment Mode

To exit the BLE adjustment mode, press the STOP key or turn off the power.

MODE NO.	Deck I Display	Deck II Display	Key Input	LINE MUTE	REC MUTE	BIAS	Adjustment and Check
2	–	2 00	2-BLE	ON	ON	OFF	———
	400	2 01	2-BLE	OFF	OFF	OFF	• For AUTO BLE 400Hz OSC output level adjustment mode □□□■□□ ■■■□■■ Adjust so that the meter becomes as shown in the above diagram. (LINE OUT output = –26dBV)
	10K	2 02	2-BLE	OFF	OFF	OFF	• For AUTO BLE 10kHz OSC output level adjustment mode □□□■□□ ■■■□■■ Adjust so that the meter becomes as shown in the above diagram. (LINE OUT output = –26dBV)
	3K	2 03	2-BLE	ON	ON	OFF	• For AUTO BLE 3kHz OSC output level adjustment mode Not used (Used only for 3 POINT BLE)
	BIAS	2 04	2-BLE	ON	ON	ON	DECK II BIAS SWEEP mode
	LEVL	2 05	2-BLE	OFF	OFF	OFF	DECK II LEVEL SWEEP mode
	EQ	2 06	2-BLE	OFF	OFF	OFF	DECK II EQ SWEEP mode
	400	2 10	1-BLE	OFF	OFF	OFF	• For AUTO BLE 400Hz OSC output level adjustment mode For adjustment the same as DECK II
	10K	2 20	1-BLE	OFF	OFF	OFF	• For AUTO BLE 10kHz OSC output level adjustment mode For adjustment the same as DECK II
	3K	2 30	1-BLE	ON	ON	OFF	• For AUTO BLE 3kHz OSC output level adjustment mode Not used (Used only for 3 POINT BLE)
	BIAS	2 40	1-BLE	ON	ON	ON	DECK I BIAS SWEEP mode
	LEVL	2 50	1-BLE	OFF	OFF	OFF	DECK I LEVEL SWEEP mode
	EQ	2 60	1-BLE	OFF	OFF	OFF	DECK I EQ SWEEP mode

1.5 ADJUSTMENTS

1. MECHANICAL ADJUSTMENT

1.1 Door Damping Check and Adjustment

Set the door spring of the DECK I side to position (A) as shown in Fig. 1. Then, erect the front panel assembly vertically.
Open the doors of DECK I and DECK II at the same time. At this point, confirm that the difference between the door completely opened and the other door is within 15mm. If this standard is not satisfied install the door spring of DECK I at another position and adjust as follows:

- When the door of DECK I opens later than that of DECK II : Change the door spring of DECK II from A to B.
- When the door of DECK I opens faster than that of DECK II : Change the door spring of DECK I from A to B.

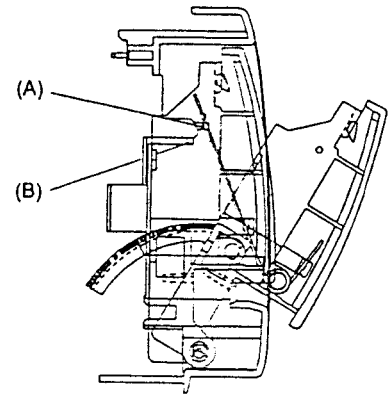


Fig. 1

1.2 Tape Speed

- Perform this adjustment in the test mode.
- TEST mode setting.

1. Press the TIME/COUNT and RESET keys of DECK I together with the PAUSE key of DECK II.
2. The speed becomes normal when the PLAY key is pressed, and double when the FF key is pressed.
3. To cancel the TEST mode, press the RESET key of DECK I.

1. Tape Speed Adjustment and Check						
No.	Deck	Mode	Test tape	Adjusting points	Specifications/Ratings (playback frequency)	Remarks
1	I	Double speed PLAY	STD-301 (3 kHz)	check	6000 Hz ± 600 Hz	
2	II			VR851	Within ± 10 Hz against the measurement value of the step 1 (deck I)	
3	I	NORMAL speed PLAY		VR802	2980 Hz ± 5 Hz	
4	II			VR852	Within ± 5 Hz against the measurement value of the step 3 (deck I)	

MAIN UNIT

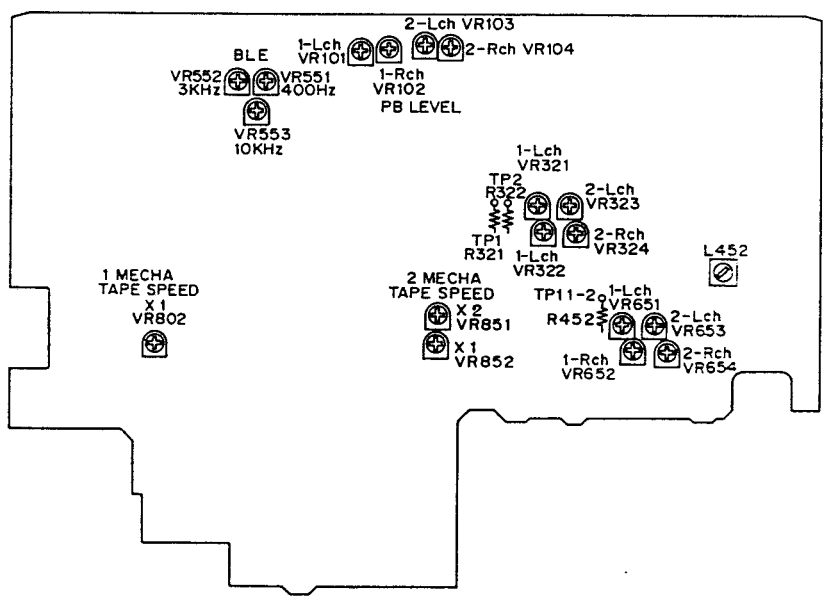


Fig. 2 Adjusting points

2. ELECTRICAL ADJUSTMENTS

Adjustment Conditions

1. The mechanical adjustments must be completed first.
2. The head must be cleaned and demagnetized.
3. Turn power on allow the deck to warm up for at least a few minutes before commencing any electrical adjustments.
4. The reference signal is 0 dBV=1 Vrms.
5. Connect a 10 kΩ load resistance to the OUTPUT terminals.
6. Unless otherwise specified, the switches listed below are left in the positions indicated.
   DOLBY NR : OFF
   TAPE SELECTOR : NORM

Test Tapes

STD-331E	: Playback adjustments (See Fig. 3)
STD-631 or STD-632	: NORMAL blank tape
STD-621	: CrO2 blank tape
STD-610	: METAL blank tape

* As the reference recording level is 250 nwb/m for STD-331E, the recording level will be higher by 4 dB for STD-331B (160 nwb/m). When adjusting, pay carefull attention to the type of tape used.

List of Adjustments

Playback sections

1. Head azimuth adjustment.
2. Playback level adjustment.

Recording sections

1. Bias oscillator adjustment.
2. Recording bias adjustment.
3. Recording level adjustment.
4. Level meter check.
5. AUTO BLE adjustment.

NOTE: This unit has an automatic tape selection feature.

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"DOLBY",the double-D symbol DD and "HX PRO"are trademarks of Dolby Laboratories Licensing Corporation.

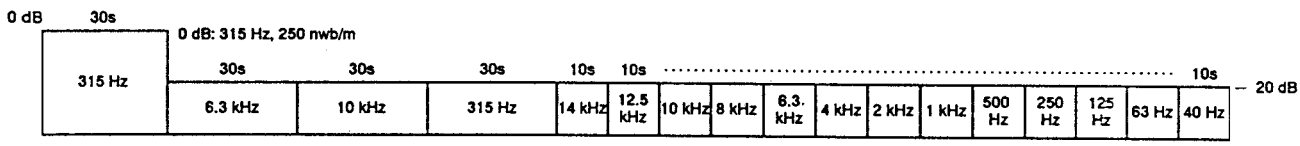


Fig. 3 Constants of the test tape STD-331E

DECK I and II

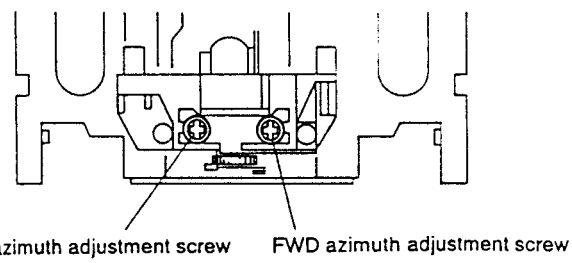
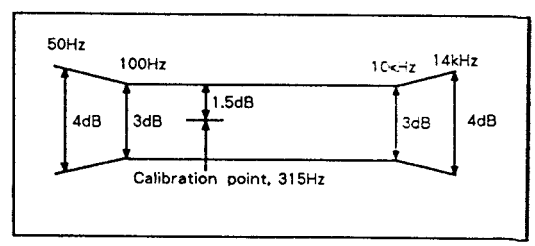


Fig. 4 Head azimuth adjustment

PLAY BACK



RECORDING

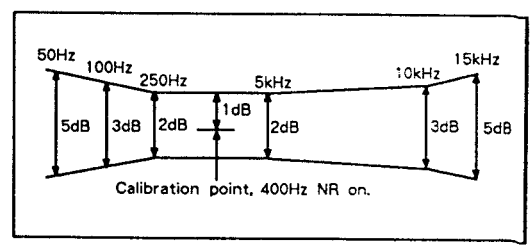


Fig. 5 Frequency response zone

PLAYBACK SECTION

1. Head Azimuth Adjustment

- Turn VR101, 102 (Deck I) or VR103, 104 (Deck II) to mechanical center positions.

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1.	PLAY	Play the 10 kHz/–20 dB section of STD–331E test tape.	Head azimuth adjustment screw. (See Fig. 4)	LINE OUT	Maximum playback signal level.	
2.	STOP	Lock the screw with screw lock after completing adjustment.				

2. Playback Level Adjustment

- This adjustment determines the DOLBY NR level, and must be performed with great care.

No.	Mode	Input signal & test tape	Adjustment location		Measuring location	Adjustment value	Remarks
1.	PLAY	Play the 315 Hz/0 dB section of the STD–331E test tape.	Deck II	VR 103 (Lch) VR 104 (Rch)	TP. 1 (Lch) TP. 2 (Rch)	–6.7 dBV	
			Deck I	VR 101 (Lch) VR 102 (Rch)			

RECORDING SECTION

1. Bias Oscillator Adjustment

No.	Mode	Input signal & test tape	Adjustment location		Measuring location	Adjustment value	Remarks
1.	REC	Load the STD–610 test tape with no input signal.	Deck II	L 452	TP. 11 – 2	105 kHz ± 0.3kHz	If the values on the left cannot be attained by adjusting, the value should be below 105 $\pm^{4}_{0.3}$ kHz.

2. Recording Bias Adjustment

- After the adjustment, caution should be exercised so as not to become under bias by checking the distortion rate.

No.	Mode	Input signal & test tape	Adjustment location		Measuring location	Adjustment value	Remarks
1.	REC	Record the 315 Hz and 6.3 kHz signals at –26 dBV input level and playback. (STD-631 or STD-632)	Deck I	VR651(Lch) VR652(Rch)	LINE OUT	Repeatedly record, playback and adjust so that the playback level of 6.3 kHz signal becomes 0 dB ± 0.5 dB when compared with the 315 Hz signal.	
			Deck II	VR653(Lch) VR654(Rch)			

3. Recording Level Adjustment

No.	Mode	Input signal & test tape	Adjustment location		Measuring location	Adjustment value	Remarks
1.	REC PAUSE	Apply a 315 Hz/0 dBV signal to the line input terminals, load the STD–631 or STD–632 test tape.	REC level control volume		TP. 1 (Lch) TP. 2 (Rch)	–11.2 dBV	
2.	REC/ PLAY	Record the above signal onto the STD–631 or STD–632 test tape, and playback.	Deck I	VR321 (Lch) VR322 (Rch)	TP. 1 (Lch) TP. 2 (Rch)	Repeatedly record, playback and adjust so that the playback signal level becomes – 11.2 dBV.	
			Deck II	VR323 (Lch) VR324 (Rch)			
3.	REC/ PLAY	Record the above signal onto the STD–621 test tape, and playback.	Check		TP. 1 (Lch) TP. 2 (Rch)	–11.2 dBV ± 1.5dB	
4.	REC/ PLAY	Record the above signal onto the STD–610 test tape, and playback.	Check		TP. 1 (Lch) TP. 2 (Rch)	–11.2 dBV ± 1.5dB	

4. Level Meter Check

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1.	REC PAUSE	Apply a 315 Hz/–6 dBV (500 mV) signal to the Line Input terminals.	REC level control volume	TP. 1 (Lch) TP. 2 (Rch)	Check that the level meters "0 dB" light up within –7.2 dBV ± 2 dB of the signal output level.	

5. AUTO BLE Adjustment (Deck II only)

- BLE adjustment should be performed after all other adjustments are completed.
- This adjustment should be performed in the test mode.
- Entering the test mode.
  For details of how to enter the test mode, refer to the "Mechanical Adjustment" section (Page 1-7)
- Refer to Page 1-6 "BLE Adjustment Mode".

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1.	–	Set to test mode.	–	–	–	
2.		Press the BLE key on the front panel.	Level meter (R channel)	VR551	Adjust so that – 3 dB on the level meter turn on.	400 Hz adjustment
3.		Press the BLE key on the front panel.		VR553		10 kHz adjustment
4.		Press the BLE key on the front panel.		VR552		3 kHz adjustment

Reference: The output of LINE OUT after completing the adjustments for 400 Hz, 10 kHz, 3 kHz becomes – 23 dBV ± 1dB.

1.6 PARTS LIST FOR EXPLODED VIEWS AND PACKING

NOTES:

- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

1. EXTERIOR AND PACKING

■ CONTRAST OF KUXJ, KCXJ, HEMXJ AND HEM TYPES

KUXJ, KCXJ, HEMXJ and HEM have the same construction except for the following:

Mark	No.	Symbol & Description	Part No.				Remarks
			KUXJ type	KCXJ type	HEMXJ type	HEM type	
	1	Main Unit	RWZ3172	RWZ3172	RWZ3157	RWZ3157	
	2	Sub Unit	RWZ3173	RWZ3173	RWZ3158	RWZ3158	
NSP	4	Transformer 2 Unit	RWZ3175	RWZ3175	RWZ3160	RWZ3160	
⚠	5	Strain Relief	CM – 22C	CM – 22C	CM – 22B	CM – 22B	
⚠	6	Fuse (1.5A)	REK1059	REK1059	Not Used	Not Used	
⚠	6	Fuse (T1.6A)	Not Used	Not Used	REK1024	REK1024	
⚠	7	AC Power Cord	PDG1015	PDG1015	PDG1003	PDG1003	
⚠	9	Power Transformer (AC120V)	RTT1223	RTT1223	Not Used	Not Used	
⚠	9	Power Transformer (AC220 – 230V/ 230 – 240V)	Not Used	Not Used	RTT1276	RTT1276	
	12	Rubber Sheet	AEB1111	AEB1111	Not Used	Not Used	
	13	Foot Assy	AEC1531	AEC1531	Not Used	Not Used	
	31	FL Lens	RAH2374	RAH2374	RAH2375	RAH2375	
	32	Front Panel	RAH2357	RAH2357	RAH2358	RAH2475	
	38	Rear Panel	RNA1772	RNA1773	RNA1774	RNA1851	
	40	65 Label	ORW1069	Not Used	Not Used	Not Used	
NSP	49	Fuse Caution Label	RRW – 111	RRW – 111	Not Used	Not Used	
NSP	51	CSA Pass Label	Not Used	RRW – 021	Not Used	Not Used	
NSP	53	Main Chassis	RNB1091	RNB1091	RNB1091	RNB1089	
	58	Knob (Headphone)	VNK1262	VNK1262	Not Used	Not Used	
	59	Insulator	Not Used	Not Used	PNW1912	PNW1912	
	65	Control Cord	RDE1030	RDE1030	RDE1030	RDE1038	
	66	Operating Instructions (English)	RRB1143	Not Used	Not Used	Not Used	
	66	Operating Instructions (English/French)	Not Used	RRE1095	Not Used	Not Used	
	66	Operating Instructions (English/French/German/Italian/ Dutch/Swedish/Spanish/Portuguese)	Not Used	Not Used	RRE1090	RRE1090	
	69	Packing Case	RHG1521	RHG1552	RHG1522	RHG1594	
	70	Connection Cord with Mini Plug	PDE – 319	PDE – 319	PDE – 319	PDE1247	
	72	Sheet	Z23 – 007	Z23 – 007	Z23 – 007	RHX – 034	

■ PARTS LIST FOR KUXJ TYPE

Mark	No.	Description	Part No.
	1	Main Unit	RWZ3172
	2	Sub Unit	RWZ3173
	3	Dolby S Unit	RWX1101
NSP	4	Transformer 2 Unit	RWZ3175
⚠	5	Strain Relief	CM – 22C
⚠	6	Fuse (1.5A)	REK1059
⚠	7	AC Power Cord	PDG1015
	8	Lead Card 31P	RDD1299
⚠	9	Power Transformer	RTT1223
	10	1 Mechanism Unit	RYM1234
	11	2 Mechanism Unit	RYM123
	12	Rubber Sheet	AEB111
	13	Foot Assy	AEC153
	14	Eject Spring L	RBH137
	15	Door Spring L	RBH130
	16	Door Spring R	RBH130
	17	Half Pressure Spring	RBK100
	18	Eject Spring R	RBH138
	19	Damper Assy	REC100
	20	Knob Spacer	REC119

Mark	No.	Description	Part No.
	21	Eject Arm L	RNE1763
	22	Eject Arm R	RNE1764
	23	Eject Lever L	RNK2045
	24	Cord Clamper	RNH – 184
	25	Balance Knob	RAC1705
	26	Eject Konb L	RAC1881
	27	Eject Konb R	RAC1882
	28	Power Knob	RAC1883
	29	Control Knob	RAC1876
	30	REC Knob A	RAC1777
	31	FL Lens	RAH2374
	32	Front Panel	RAH2357
	33	Door Pocket L	RAH2367
	34	Door Pocket R	RAH2369
	35	Door Lens	RAH2435
	36	Name Plate	RAM1007
	37	Remain Display Paper	REE – 113
	38	Rear Panel	RNA1772
	39	LED Lens	PNW2019
	40	65 Label	CRW1069
	41	Slide Knob	REA1078
	42	Bonnet	REA1077
NSP	43	Spacer	REB1267
	44	·····	
	45	·····	
NSP	46	Eject Collar	RLA1283
NSP	47	Arm Collar	RLA1290
NSP	48	Earth Lead Unit	XDF – 504
NSP	49	Fuse Caution Label	RRW – 111
NSP	50	Transformer 1 PCB	RNZ2592
	51	·····	
NSP	52	PCB Spacer	PNY – 404
NSP	53	Main Chassis	RNB1091
	54	Connector Assy 5P	RKP1676
	55	Connector Assy 5P	RKP1677
NSP	56	Binder	Z09 – 057
	57	Eject Lever R	RNK2046
	58	Knob (Headphone)	VNK1262
	59	·····	
	60	Screw	BBZ30P080FZK
	61	Screw	IBZ30P150FCU
	62	Screw	BCZ26P050FMC
	63	Screw	BSZ26P120FMC
	64	Screw	BBZ30P060FMC
	65	Control Cord	RDE1030
	66	Operating Instructions (English)	RRB1143
	67	Pad	RHA1115
	68	Pad R	RHA1116
	69	Packing Case	RHG1521
	70	Connection Cord with Mini Plug	PDE – 319
	71	Connection Cord Assy	RDE1036
	72	Sheet	Z23 – 007

2. 1 AND 2 MECHANISM UNIT

Mark	No.	Description	Part No.
	1	PLUNGER	RLA1288
	2	·····	
	3	PUSH SWITCH	RSG1018
	4	SPLF	RSN1023
	5	PHOTO – TRANSISTOR	SPI33534FG
	6	MTR MAIN BLK	RXM1075
	7	SOLENOID BLK	RXP1021
	8	SPRING INTERLOCK R	RBH1386
	9	ARM INTERLOCK R	RNE1781
	10	CHASSIS BASE BLK	RXA1626
	11	SPRING BRAKE	RBH1387
	12	MAIN BELT	REB1157
	13	F/R BELT	REB1254
	14	LEVER BRAKE	RNK2071
	15	F/W ASSY	RXA1428
	16	PINCH ROLLER BLK R	RXA1628
	17	PINCH ROLLER BLK L	RXA1629
	18	CLUTCH BLK ASSY	RXA1631
	19	SCREW	RBA1113
	20	WASHER 2.1 × 0.25T	RBF1038
	21	SPRING REEL (L)	RBH1388
	22	SPRING REEL (R)	RBH1389
	23	CAM SPRING	RBH1393
	24	SPACER	RLA1286
	25	LEVER F/R	RNE1782
	26	REEL FEATHER	RNK2072
	27	REEL BASE	RNK2073
	28	PLAY GEAR (A)	RNK2074
	29	FF GEAR (A)	RNK2075
	30	F/R PULLEY	RNK2076
	31	CLUTCH BLK ASSY	RXA1632
	32	WASHER	WA17D040I025
	33	WASHER	WA23F060MO40
	34	SCREW	PCZ20P040FMC
	35	SCREW	RBA1077
	36	SPRING HB	RBH1390
	37	HEAD BASE	RNE1783
	38	·····	
	39	HD PCB 5P	RXA1635
	40	SCREW	RBA1113
	41	WASHER 2.0 × 0.3	RBE1009
	42	SPRING ARM PLAY	RBH1392
	43	SPACER	RLA1286
	44	PLATE SLIDE	RNE1785
	45	CAM GEAR	RNK2078
	46	ARM PLAY	RNK2079
	47	SPRING CASSETTE	RNE1786
	48	SCREW	BMZ26P040FZK
	49	WASHER	WA26D045I025
	50	WASHER	WA26D047I050
	51	STOP RING	YE15FUC
	52	SPRING INTERLOCK L	RBH1385
	53	ARM INTERLOCK L	RNE1780
	54	PCB CONTROL BLK	RXA1624
	55	PLATE HD BLK	RXA1634

1.7 PCB PARTS LIST

NOTES:

- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω → 56 × 10^1 → 561 ····· RD1/8PM[5][6][1]J
47k Ω → 47 × 10^3 → 473 ····· RD1/4PS[4][7][3]J
0.5 Ω → 0R5 ····· RN2H[0][R][5]K
1 Ω → 010 ····· RS1P[0][1][0]K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω → 562 × 10^1 → 5621 ····· RN1/4PC[5][6][2][1]F

LIST OF WHOLE PCB ASSEMBLIES

Mark	PCB Assemblies	Part No.				Remarks
		KUXJ type	KCXJ type	HEM type	HEMXJ type	
NSP	Mother unit	RWM1684	RWM1684	RWM1681	RWM1681	
	├Main unit	RWZ3172	RWZ3172	RWZ3157	RWZ3157	
	│└Dolby S unit	RWX1101	RWX1101	RWX1101	RWX1101	
	├Sub unit	RWZ3173	RWZ3173	RWZ3158	RWZ3158	
NSP	└Transformer 2 unit	RWZ3175	RWZ3175	RWZ3160	RWZ3160	

MAIN UNIT

RWZ3172 and RWZ3157 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		RWZ3172	RWZ3157	
	IC2001	XRA15218	Not used	
	C1009	CGCYF104Z25	Not used	
	C1011	RCH1116	RCH1120	
	C2001	CKSQYB681K50	Not used	
	C2002,C2007	CCSQSL101J50	Not used	
	C2003	CEAS470M16	Not used	
	C2004 – C2006	CEAS100M50	Not used	
	C2011, C2012	CEAS010M50	Not used	
	JA2001	RKN1003	Not used	
	R2001	RS1/10S471J	Not used	
	R2002	RD1/6PM104J	Not used	
	R2005	RS1/10S102J	Not used	
	R2006	RS1/10S392J	Not used	
	R2007, R2008	RS1/10S104J	Not used	
	R2009, R2011	RD1/6PM181J	Not used	
	R2010	RS1/10S563J	Not used	
	R2012	RD1/6PM682J	Not used	
	R2017,R2018	RD1/6PM153J	Not used	
	VR2003	RCV1090	Not used	
	MIC SHIELD PLATE	RNE1588	Not used	
	SHIELD PLATE A	Not used	RNE1592	

SUB UNIT

Although RWZ3173 and RWZ3158 are different in part number, they consist of the same components.

TRANSFORMER 2 UNIT

Although RWZ3175 and RWZ3160 are different in part number, they consist of the same components.

• PARTS LIST FOR KUXJ AND KCXJ TYPES

Mark	No.	Description	Part No.
DOLBY S UNIT			
SEMICONDUCTORS			
	IC1001, IC1002		CXA1417Q
CAPACITORS			
	C1003, C1004, C1015, C1016		CEJA010M50
	C1051, C1052		CEJA010M50
	C1089, C1090		CEJA100M25
	C1085, C1086		CEJA220M25
	C1033, C1034		CEJAR10M50
	C1001, C1002, C1031, C1032		CEJAR22M50
	C1045, C1046, C1091, C1092		CEJAR22M50
	C1027, C1028, C1041, C1042		CEJAR47M50
	C1075, C1076		CEJAR47M50
	C1019, C1020		CFTYA224J50
	C1037, C1038		CFTYA334J50
	C1013, C1014, C1055, C1056		CKSQYB102K50
	C1007, C1008, C1025, C1026		CKSQYB104K25
	C1043, C1044, C1067, C1068		CKSQYB104K25
	C1077, C1078, C1081, C1082		CKSQYB104K25
	C1087, C1088		CKSQYB104K25
	C1023, C1024, C1049, C1050		CKSQYB153K50
	C1065, C1066, C1069-C1072		CKSQYB182K50
	C1083, C1084		CKSQYB182K50
	C1079, C1080		CKSQYB183K50
	C1059, C1060		CKSQYB222K50
	C1009, C1010, C1073, C1074		CKSQYB223K50
	C1093, C1094		CKSQYB333K50
	C1005, C1006, C1061, C1062		CKSQYB393K50
	C1063, C1064		CKSQYB471K50
	C1047, C1048		CKSQYB473K50
	C1011, C1012		CKSQYB681K50
	C1017, C1018, C1053, C1054		CKSQYB822K50
	C1021, C1022, C1039, C1040		CKSQYB823K25
	C1029, C1030, C1035, C1036 (47/16)		RCH1095
RESISTORS			
	All Resistors		RS1/10S□□□J
OTHERS			
	CN1002		6033B-07Z029
	CN1001		6033B-08Z029

Mark	No.	Description	Part No.
MAIN UNIT			
SEMICONDUCTORS			
	IC101		CXA1115BP
	IC351		CXA1198AP
	IC201		CXA1563S
	IC502		LC7570
	IC1701		MC14050BCP
	IC352		MC14051BCP
⚠	IC1003, IC1004		NJM7812FA
⚠	IC1002		NJM78M06FA
⚠	IC1008		NJM79L06A
	IC231		PA0059AM
	IC501		PD4507A
	IC651		UPC1297CA
	IC903		XRA10393
	IC2001, IC554, IC701		XRA15218
	IC1601		XRA15218N
	Q1005, Q235, Q801, Q851		2SA1309A
	Q460, Q805, Q855		2SB1238X
	Q803, Q853		2SB1425
	Q456, Q457		2SC1815
	Q1006, Q1007, Q454, Q455, Q459		2SC3311A
	Q807, Q857		2SC3311A
	Q353, Q354, Q458, Q701, Q702		2SD2144S
	Q741, Q742		2SD2144S
	Q553		2SK246
	Q151, Q152, Q161, Q162		2SK373
	Q171, Q172		2SK373
	Q1401, Q333, Q762		DTA114TS
	Q109, Q1151-Q1162, Q1166, Q123		DTC114TS
	Q1402, Q153, Q154, Q157, Q158		DTC114TS
	Q163, Q164, Q167, Q168, Q234		DTC114TS
	Q253-Q256, Q321-Q324, Q332		DTC114TS
	Q551, Q552		DTC114TS
	Q125, Q126, Q351, Q352		DTC115TS
	Q155, Q165, Q652		XDA114ES
	Q1010, Q507, Q508, Q511, Q512		XDA124ES
	Q101, Q102, Q231, Q233		XDC124ES
	Q251, Q252, Q653, Q802, Q804		XDC124ES
	Q806, Q852, Q854, Q856		XDC124ES
	Q901, Q902		XDC124ES
	D801, D851		1ES2
⚠	D1001, D1006		1SR35-100AVL

Mark	No.	Description	Part No.
	D452		1SS252
⚠	D1009-D1011, D1151, D1152		1SS254
⚠	D1400-D1406, D151-D156		1SS254
⚠	D161-D168, D231-D233, D235		1SS254
⚠	D501, D503, D507, D508		1SS254
⚠	D510-D512, D520, D653		1SS254
⚠	D655-D658, D742, D913		1SS254
	D502		MTZ9.1B
⚠	D1020		MTZJ3.3B
	D765		MTZJ3.9B
	D1021		MTZJ5.1B
⚠	D1012		S2VB20
COILS AND FILTERS			
	L451		LFA121K
	L651, L652 (4.6MH)		RTD1030
	L452 (105K)		RTD1048
	L101, L102 (5.6MH)		RTF1099
	L351, L352 (10MH)		RTF1102
	F251, F252 (6.8MH)		RTF1203
SWITCHES AND RELAYS			
	RY101, RY651		RSR1026
CAPACITORS			
	C659, C660		CCCSL101K500
	C151, C152, C161, C162		CCSQCH100D50
	C171, C172		CCSQCH100D50
	C359		CCSQCH221J50
	C135-C138, C2002, C2007, C663		CCSQSL101J50
	C701, C702, C711, C712		CCSQSL101J50
	C723, C724		CCSQSL101J50
	C111, C112		CEANL101M10
	C2004, C201, C2011, C2012, C202		CEAS010M50
	C263, C555, C703, C704		CEAS010M50
	C1016, C2005, C2006, C203, C204		CEAS100M50
	C209-C212, C215-C218, C459		CEAS100M50
	C667, C707, C708		CEAS100M50
	C1603, C1604, C200, C231, C240		CEAS101M16
	C244, C245		CEAS101M16
	C1018		CEAS220M50
	C351, C352		CEAS221M10
	C1001		CEAS221M50
	C1004, C451, C458, C521		CEAS330M35
	C1013, C1015, C1605		CEAS331M16
	C1024, C1025, C141, C142, C2003		CEAS470M16
	C239, C361, C508, C705		CEAS470M16
	C117, C118, C213, C235-C238		CEAS4R7M50
	C241, C247, C248, C353-C356		CEAS4R7M50
	C664		CEASR10M50
	C1601, C1602		CEASR22M50
	C915		CEASR47M50
	C255, C256		CFTXA392J50
	C257, C258		CFTXA472J50
	C113, C114		CFTXA822J50
	C233, C234, C651, C652		CFTYA103J50
	C205, C206		CFTYA104J50
	C321, C322		CFTYA184J50
	C454, C655, C656		CFTYA223J50
	C207, C208		CFTYA683J50
	C1009		CGCYF104Z25
	C455-C457		CGCYX332K25
	C1400, C1402		CKCYF103Z50
	C1008, C1020, C1021, C1030, C1401		CKCYF473Z50
	C2020, C706		CKCYF473Z50
	C105, C106, C801, C851		CKSQYB102K50
	C554		CKSQYB103K50
	C503		CKSQYB104K25
	C504		CKSQYB123K50
	C121, C122, C360		CKSQYB221K50
	C249, C250		CKSQYB222K50
	C505, C552		CKSQYB223K50
	C123, C124, C362, C363		CKSQYB391K50
	C103, C104		CKSQYB471K50
	C553		CKSQYB472K50
	C101, C102		CKSQYB561K50
	C133, C134, C2001		CKSQYB681K50
	C653, C654		CKSQYB821K50
	C551		CKSQYB823K25
	C501, C502, C506, C507		CKSQYF103Z50
	C358		CKSQYF104Z50
	C1022, C119, C126, C139, C1701		CKSQYF473Z50
	C251, C357, C657, C658, C769		CKSQYF473Z50
	C919		CKSQYF473Z50
	C453		CQPA682J100
	C1007 (4700/16)		PCH1116
	C1010 (1000/10)		PCH1117
	C661, C662 (470P/500)		RCG1006
	C1011 (4700/25)		RCH1116
RESISTORS			
	R502		RA4T223J
	R501		RA4T683J
	R503		RA6T223J
	R504		RA6T683J
	R1702 (11K/22K)		RCX1020
	R451, R452		RD1/2LMF010J
	R468		RD1/2LMF150J
	R461		RD1/2LMF680J
	R118, R469		RD1/6PM102J
	R551, R557-R559		RD1/6PM103J
	R135, R2002, R552		RD1/6PM104J
	R661, R662		RD1/6PM105J
	R236, R243		RD1/6PM222J
	R1024, R1025		RD1/6PM223J
	R803		RD1/6PM224J
	R809, R810, R859, R860		RD1/6PM152J
	R2017, R2018		RD1/6PM153J
	R2009, R2011		RD1/6PM181J
	R563, R564		RD1/6PM202J
	R136, R395, R460, R465, R717		RD1/6PM222J

Mark	No.	Description	Part No.
	R806, R856		RD1/6PM222J
	R464, R926		RD1/6PM223J
	R454, R455		RD1/6PM273J
	R477		RD1/6PM302J
	R1007		RD1/6PM362J
	R1605, R1606		RD1/6PM470J
	R156, R166, R718		RD1/6PM473J
	R2012		RD1/6PM682J
	R565		RD1/6PM683J
	R1602		RD1/6PM823J
⚠	R1020		RFA1/4L470J
	R1002		RS2LMF271J
	R1609		RS2LMF750J
	R1023		RS3LMF150J
	VR851 (2.2K)		RCP1019
	VR802, VR852 (1.0K)		RCP1044
	VR551-VR553, VR651-VR654 (22K)		RCP1046
	VR101-VR104, VR321-VR324 (47K)		RCP1047
	VR2002 (5KA)		RCV1089
	VR2003 (10KA)		RCV1090
	Other Resistors		RS1/10S□□□J

OTHERS

	CN1503 FFC CONNECTOR	52045-3145
	CN451, CN452 CONNECTOR POST	B2B-PH-K
	CN101, CN102 CONNECTOR POST	B3B-PH-K
	JA1403 MINI JACK	PKN1005
	JA701 PIN JACK 4P	RKB-020
	JA2003 HEADPHONE JACK	RKN1002
	JA2001 MIC JACK	RKN1003
	JA1401, JA1402 REMOTE CONTROL JACK	RKN1004
	PLATE	RNE1588
	PCB BINDER	VEF1040
	EARTH PLATE	VNF-091
	X501 CERAMIC RESONATOR(4.19MHz)-	VSS1014

SUB UNIT

SEMICONDUCTORS

	Q1501	DTA114TS
	D1501-D1514	1SS254
	D527	SEL6210S

SWITCHES AND RELAYS

	S1501-S1516, S1518-S1528	RSG1034
	S1529, S1530	RSH1041
	S1531	RSH1042

RESISTORS

	All Resistors	RD1/6PM□□□J

OTHERS

	CN1501	9604S-31F
	V1501	RAV1132

TRANSFORMER 2 UNIT

OTHERS

	HOLDER	RKR1002

PIONEER®
The Art of Entertainment

Service Manual

ORDER NO.
RRZ1132

The chapter 1 of this Service Manual will not be reprinted. On your additional orders, we may supply only the chapter 2. For the chapter 1, please make copies and attach to the chapter 2 at your side if necessary.

STEREO DOUBLE CASSETTE DECK

CT-W703RS

CHAPTER 2

CONTENTS

CHAPTER2
2.1 EXPLODED VIEWS AND PACKING ····· 2-3
2.2 BLOCK DIAGRAM ····· 2-7
2.3 SCHEMATIC DIAGRAMS ····· 2-8
2.4 PCB CONNECTION DIAGRAM ····· 2-13

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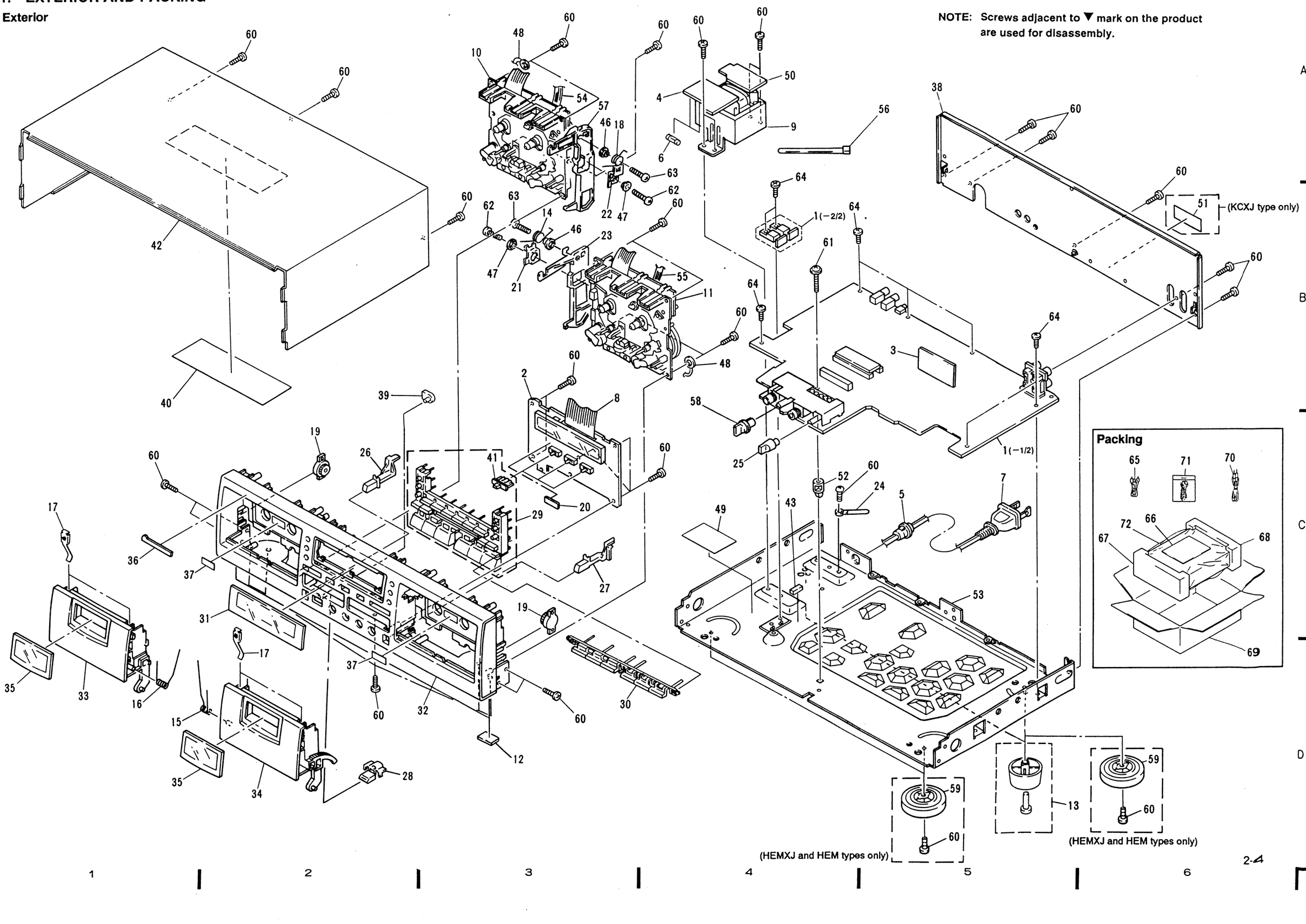
T – SSG APR. 1994 Printed in Japan

2.1 EXPLODED VIEWS AND PACKING

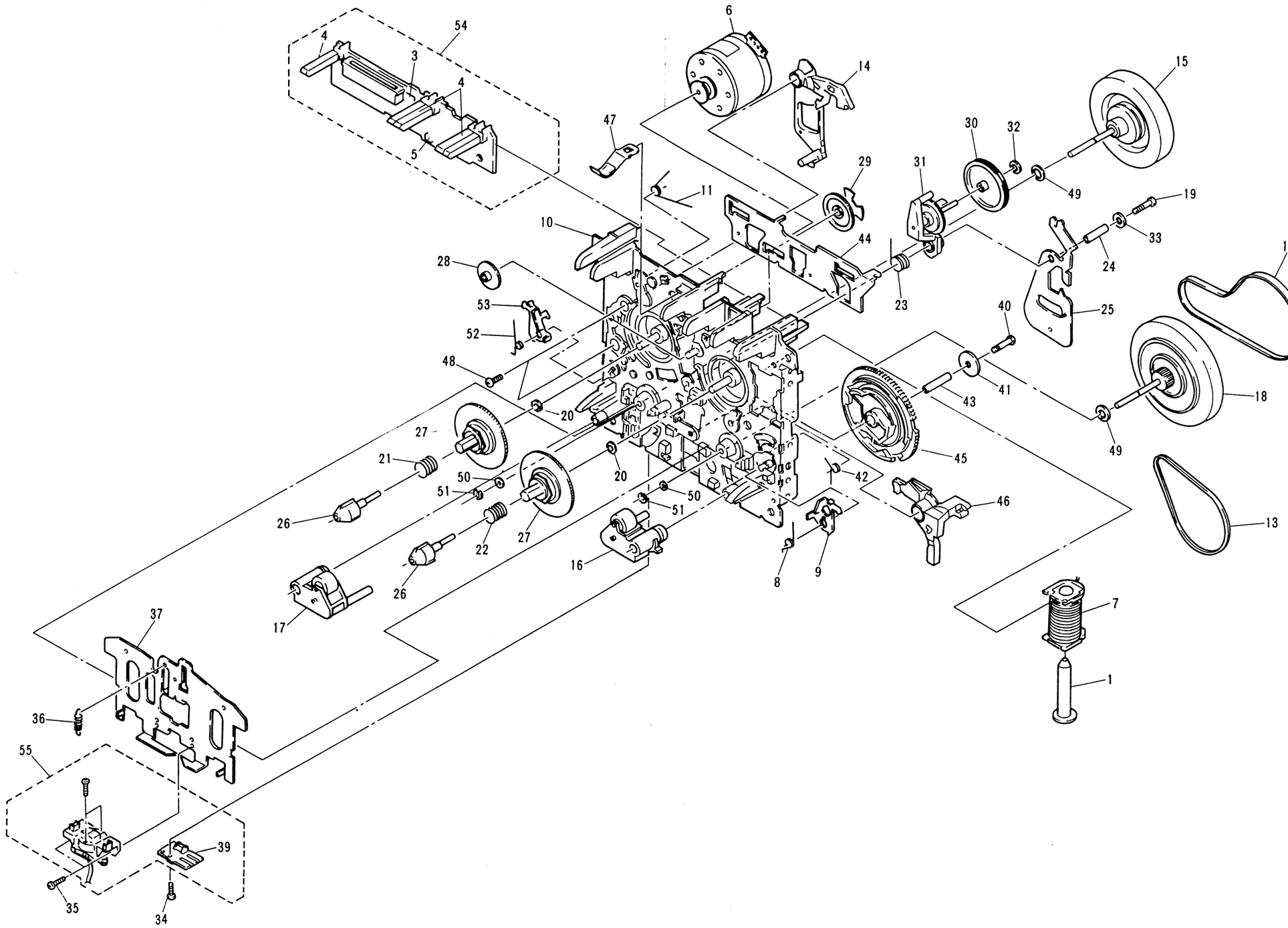
1. EXTERIOR AND PACKING

Exterior

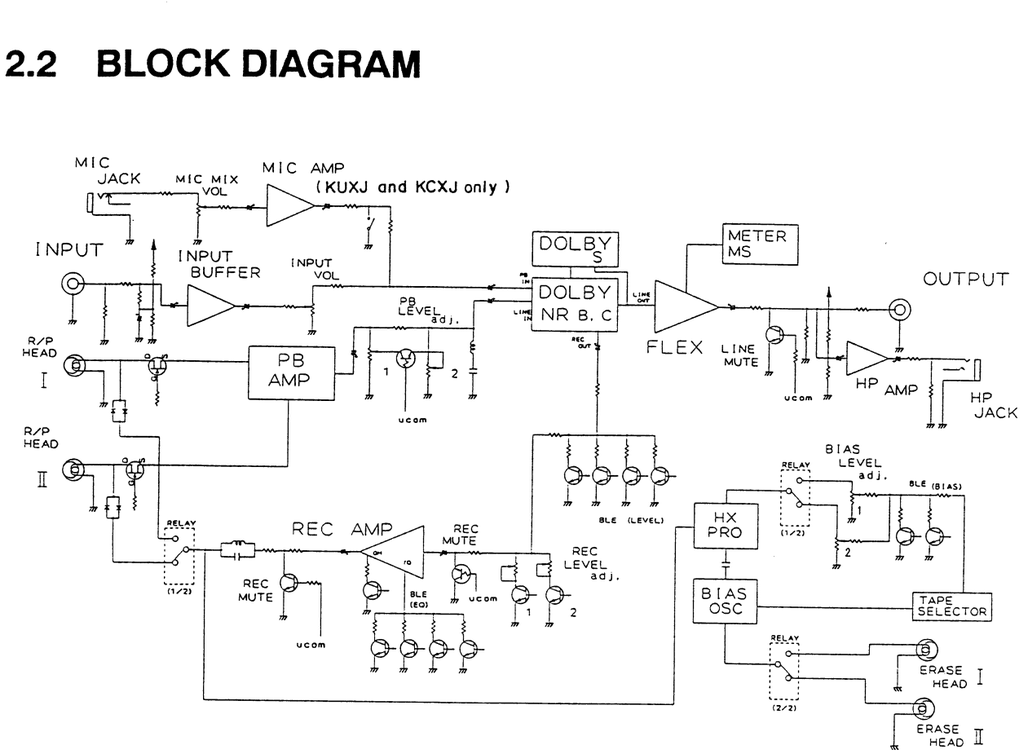
NOTE: Screws adjacent to ▼ mark on the product are used for disassembly.



2. 1 AND 2 MECHANISM UNIT



2.2 BLOCK DIAGRAM



2.3 SCHEMATIC DIAGRAMS

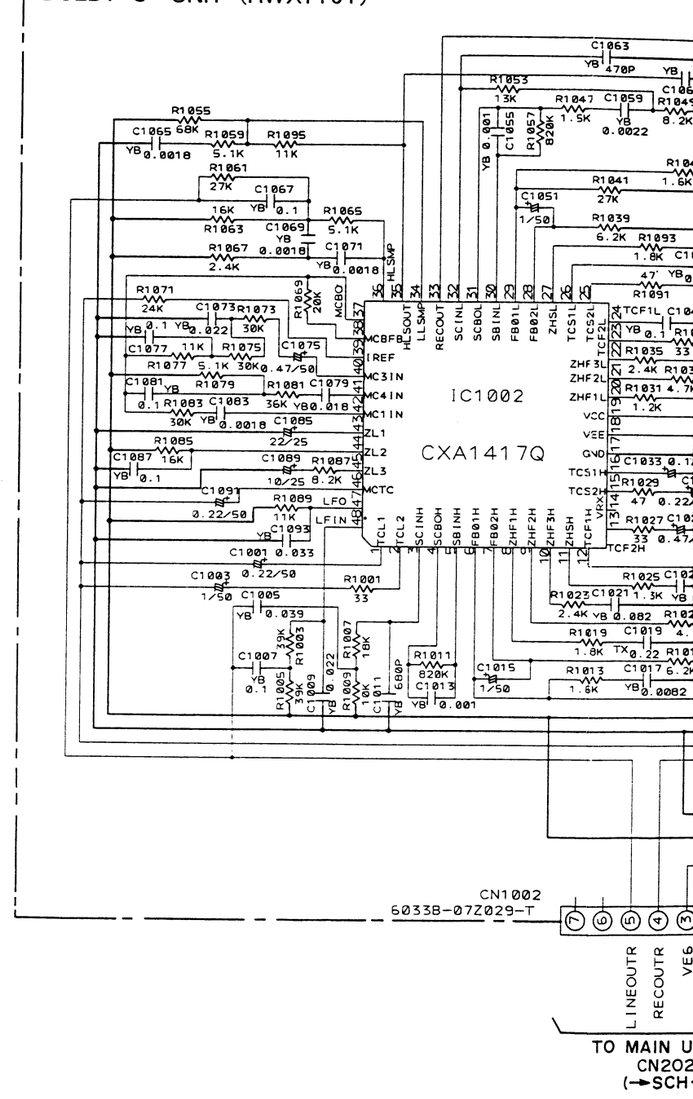
1. DOLBY S UNIT

NOTE FOR SCHEMATIC DIAGRAMS (Type 6A)

1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**
2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**
3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
   Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
4. **CAPACITORS:**
   Unit: p:pF or µF unless otherwise noted.
   Ratings: capacitor (µF)/ voltage (V) unless otherwise noted.
   Rated voltage: 50V except for electrolytic capacitors.
5. **COILS:**
   Unit: m:mH or µH unless otherwise noted.
6. **VOLTAGE AND CURRENT:**
   ▭ or ⊢ V :
   DC voltage (V) in STOP mode unless otherwise noted.
   ⇦ mA or ⊢ mA :
   DC current in STOP mode unless otherwise noted.
7. **OTHERS:**
   - ⊘ or ⊘ : Adjusting point.
   - ◁ : Measurement point.
   - The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
8. **SCH—□ ON THE SCHEMATIC DIAGRAM:**
   - SCH—□ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)
9. **SWITCHES** (Underline indicates switch position):

SUB UNIT
S1501 : ▶▶/MS
S1502 : ◀◀/MS
S1503 : ◀
S1504 : ▶
S1505 : ⏺
S1506 : ■
S1507 : ●
S1508 : ▮▮ (DECK I)
S1509 : ▶▶/MS
S1510 : ◀◀/MS
S1511 : ◀
S1512 : ▶
S1513 : ⏺
S1514 : ■
S1515 : ●
S1516 : ▮▮ (DECK II)
S1518 : COPY I▶II NORMAL
S1519 : COPY I▶II HIGH
S1520 : FLEX
S1521 : TIME/COUNT (DECK II)
S1522 : RESET (DECK I)
S1523 : TIME/COUNT (DECK I)
S1524 : RESET (DECK II)
S1525 : CD SYNC
S1526 : BLE (DECK I)
S1527 : BLE (DECK II)
S1528 : POWER ON/OFF
S1529 : DOLBY B – C – S
S1530 : REV MODE RELAY/SKIP ↹ - ⇉ - ⇇
S1531 : DOLBY OFF/ON

DOLBY S UNIT (RWX1101)

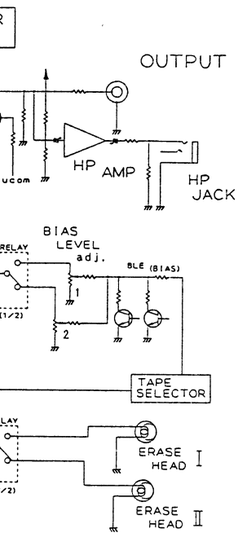


SCH—1 DOLBY S UNIT

2.3 SCHEMATIC DIAGRAMS

1. DOLBY S UNIT

SCH-1



NOTE FOR SCHEMATIC DIAGRAMS (Type 6A)

1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**
2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**
3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
   Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
4. **CAPACITORS:**
   Unit: p:pF or μF unless otherwise noted.
   Ratings: capacitor (μF)/ voltage (V) unless otherwise noted.
   Rated voltage: 50V except for electrolytic capacitors.
5. **COILS:**
   Unit: m:mH or μH unless otherwise noted.
6. **VOLTAGE AND CURRENT:**
   ▭ or ⊢ V :
   DC voltage (V) in STOP mode unless otherwise noted.
   ⇦ mA or ⊢ mA :
   DC current in STOP mode unless otherwise noted.
7. **OTHERS:**
   - ⊘ or ⊘ : Adjusting point.
   - ◁ : Measurement point.
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S1506 : ■
S1507 : ●
S1508 : ▮▮ (DECK I)
S1509 : ▶▶/MS
S1510 : ◀◀/MS
S1511 : ◀
S1512 : ▶
S1513 : ○
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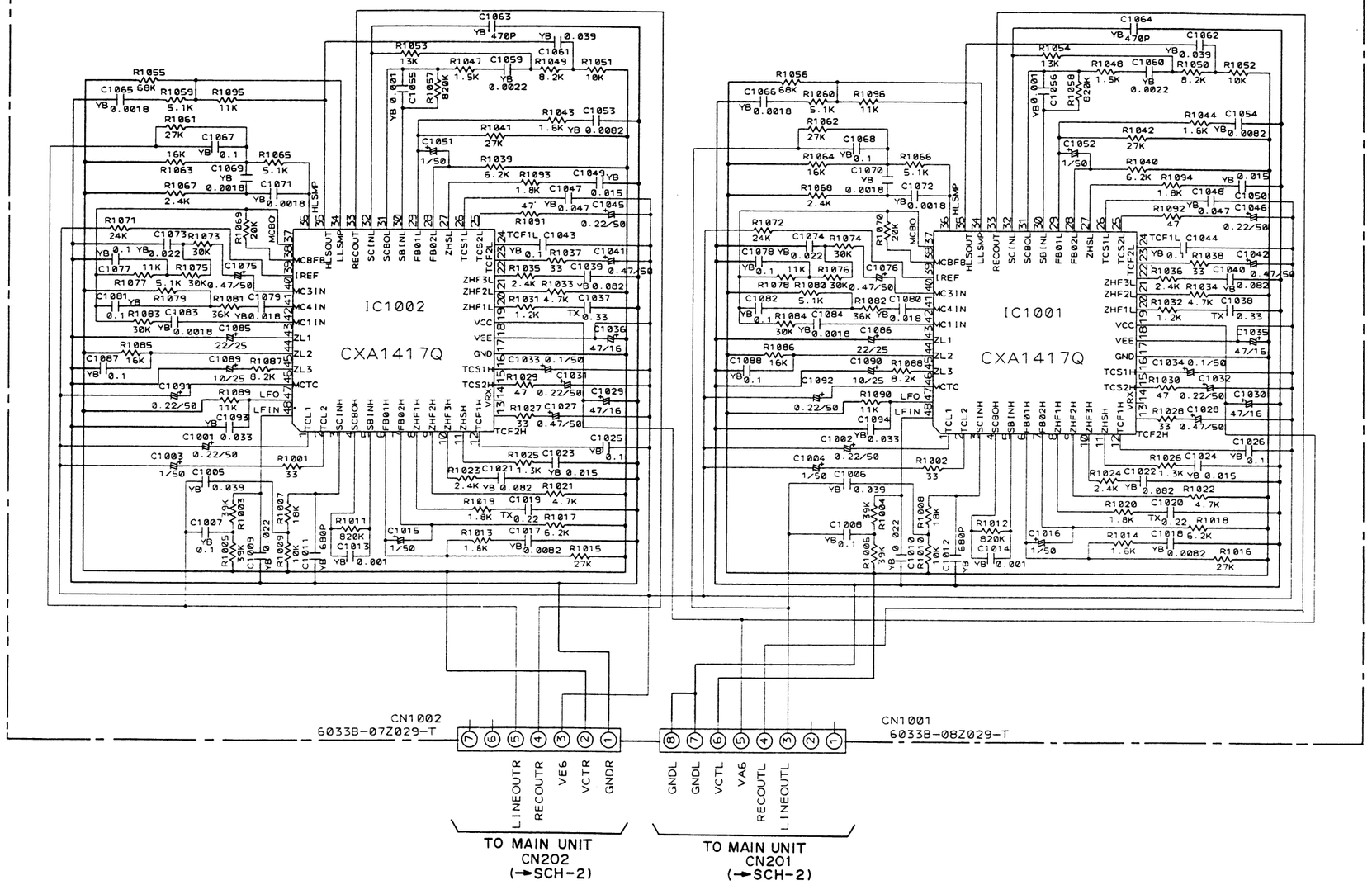
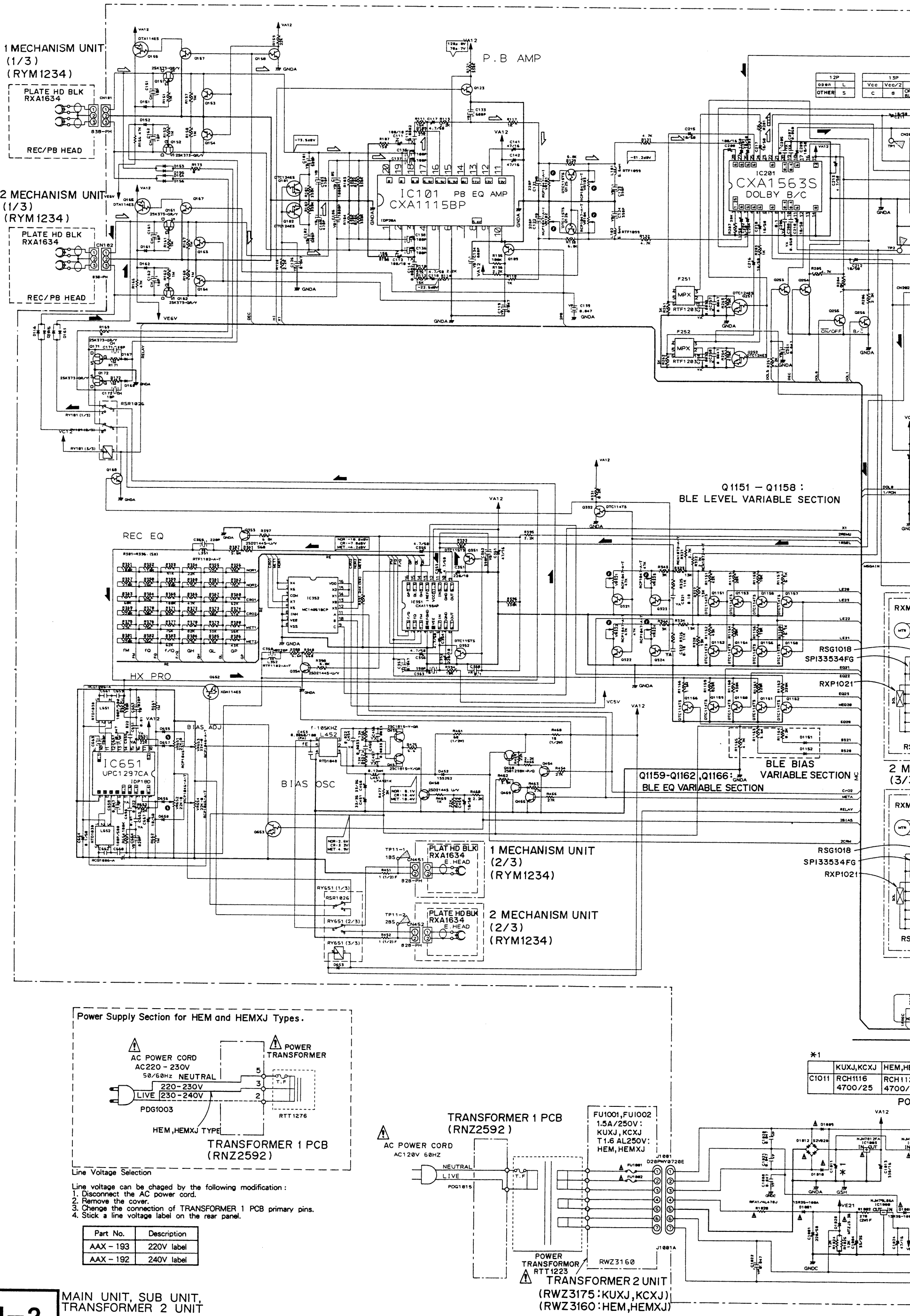
S1524 : RESET (DECK II)
S1525 : CD SYNC
S1526 : BLE (DECK I)
S1527 : BLE (DECK II)
S1528 : POWER ON/OFF
S1529 : DOLBY B-C-S
S1530 : REV MODE RELAY/SKIP ⇆-⇄-⇆
S1531 : DOLBY OFF/ON

DOLBY S UNIT (RWX1101)



2. MAIN, SUB AND TRANSFORMER 2 UNIT



Line Voltage Selection

Line voltage can be chaged by the following modification :
1. Disconnect the AC power cord.
2. Remove the cover.
3. Chenge the connection of TRANSFORMER 1 PCB primary pins.
4. Stick a line voltage label on the rear panel.

Part No.	Description
AAX – 193	220V label
AAX – 192	240V label

*1

	KUXJ,KCXJ	HEM,HE
C1011	RCH1116 4700/25	RCH11 4700/

SCH–2 MAIN UNIT, SUB UNIT, TRANSFORMER 2 UNIT

SIGNAL ROUTE
: PLAYBACK SIGNAL
: RECORDING SIGNAL
: RECORDING MONITOR SIG

KUXJ, KCXJ ONLY

TO DOLBY S UNIT CN1001 (→SCH-1)

TO DOLBY S UNIT CN1002 (→SCH-1)

IC201 CXA1563S DOLBY B/C

H. PHONE AMP

BLE PILOT SIGNAL FILTER

METER AMP

Q1151 – Q1158 : BLE LEVEL VARIABLE SECTION

1 MECHANISM UNIT (3/3) (RYM1234)

RXM1075 RSN1023

RSG1018
SPI33534FG
RXP1021

2 MECHANISM UNIT (3/3) (RYM1234)

BLE BIAS VARIABLE SECTION

Q1159-Q1162, Q1166: BLE EQ VARIABLE SECTION

IC501 : SYSTEM CONTROL

IC501 PD4507A

IC502 LC7570

IC502:EXPANDER IC

*1	KUXJ,KCXJ	HEM,HEMXJ
C1011	RCH1116 4700/25	RCH1120 4700/35

POWER SUPPLY

RESET

CD SYNC.

SR

FU1001,FU1002 1.5A/250V: KUXJ,KCXJ T1.6 AL250V: HEM,HEMXJ

RWZ3160

TRANSFORMER 2 UNIT (RWZ3175 : KUXJ,KCXJ) (RWZ3160 : HEM,HEMXJ)

SUB UNIT (RWZ3173 : KUXJ,KCXJ) (RWZ3158 : HEM,HEMXJ)

SIGNAL ROUTE
: PLAYBACK SIGNAL
: RECORDING SIGNAL
: RECORDING MONITOR SIGNAL

MAIN UNIT
(RWZ3172 : KUXJ, KCXJ)
(RWZ3157 : HEM , HEMXJ)

KUXJ, KCXJ ONLY

MIC AMP

H. PHONE AMP

BLE PILOT SIGNAL FILTER

400Hz L.P.F

METER AMP

IC501 : SYSTEM CONTROL

IC502 : EXPANDER IC

CD SYNC.

RESET

SR

SUB UNIT
(RWZ3173 : KUXJ, KCXJ)
(RWZ3158 : HEM, HEMXJ)

NOTE : If the parts are not identified in the diagram the followings are used.

ISS254
2SA1309 (R/S)
2SC3311 (R/S)
DTA114TS
DTC114TS
XDA114ES
XDC124ES

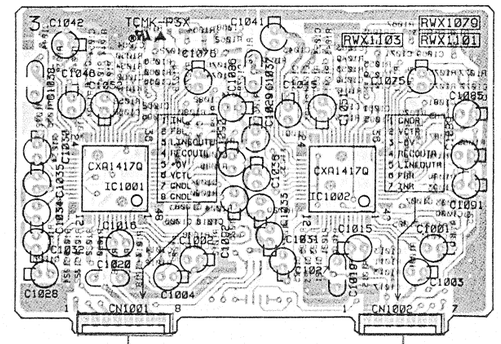
MAIN UNIT, SUB UNIT, TRANSFORMER 2 UNIT

SCH-2

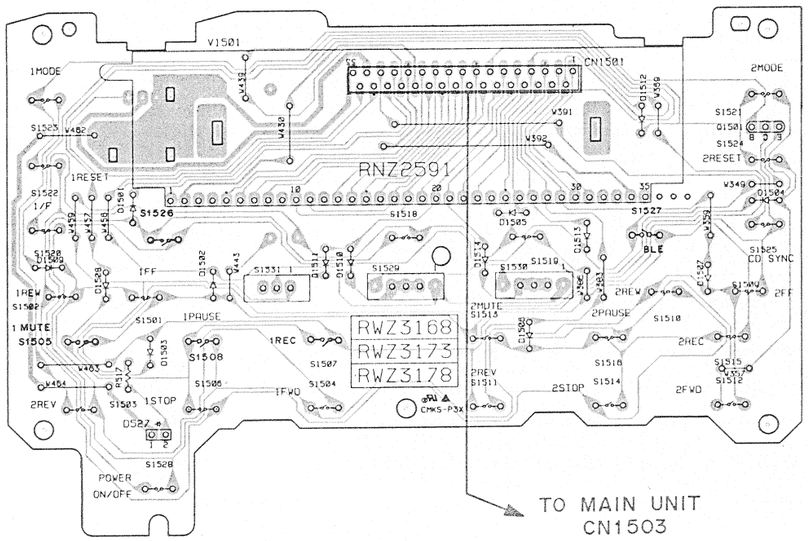
2.4 PCB CONNECTION DIAGRAM

- This diagram is viewed from the pink colored foil side.
- This PCB is double sided.

DOLBY S UNIT



SUB UNIT



- This diagram is viewed from the mounted parts side.

NOTE FOR PCB DIAGRAMS:

1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
Q504 (E B C)	Q504 Q504	Transistor
D203	D203	Diode
C513	C513	Capacitor (Polarized)

3. The transistor terminal marked with E or ⊏ shows the emitter.
4. The diode terminal marked with ◎ or ▷ shows cathode side.
5. The capacitor terminal marked with ◎ or ⊏ shows negative terminal.

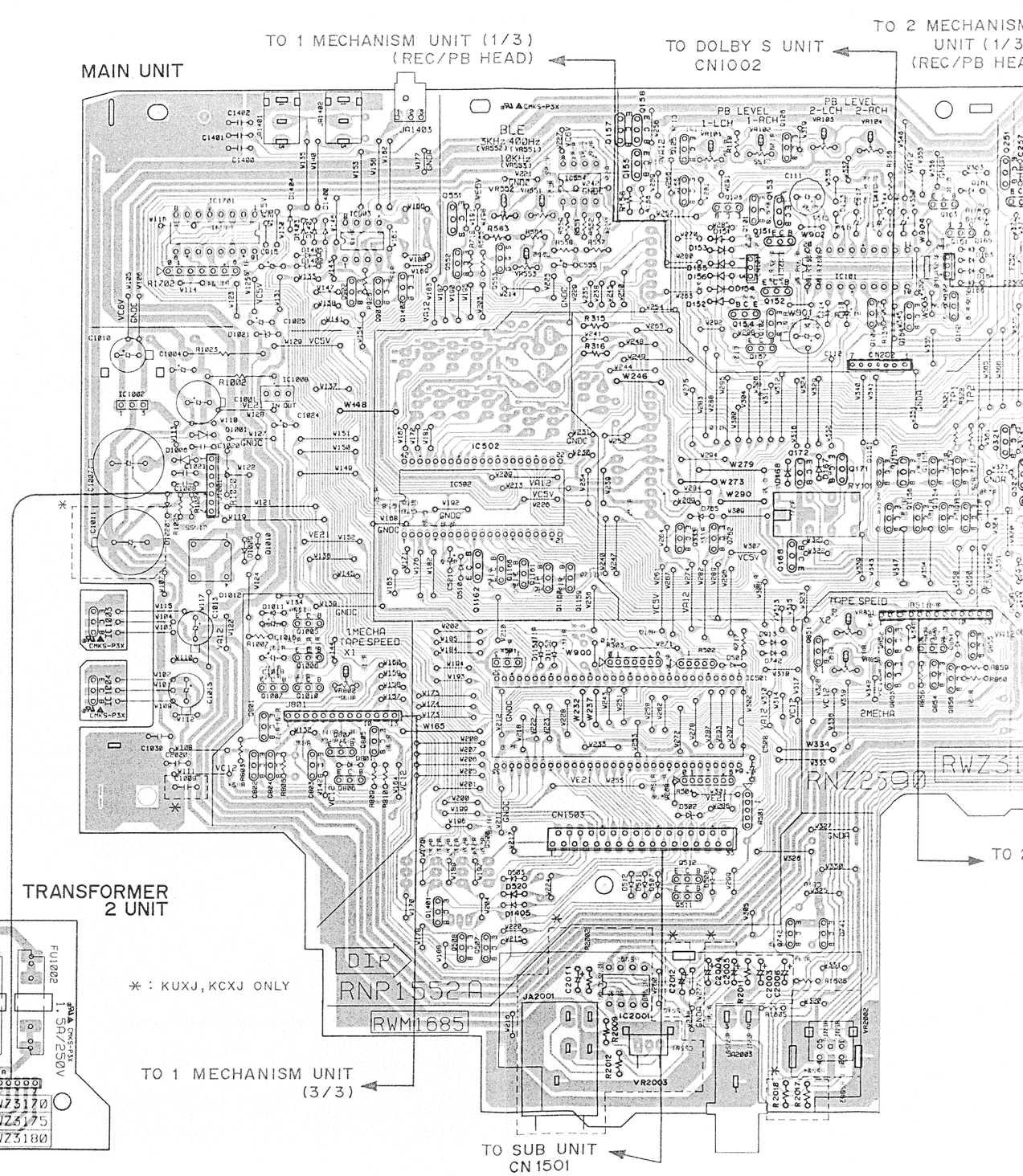
NOTE FOR PCB DIAGRAMS:

1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

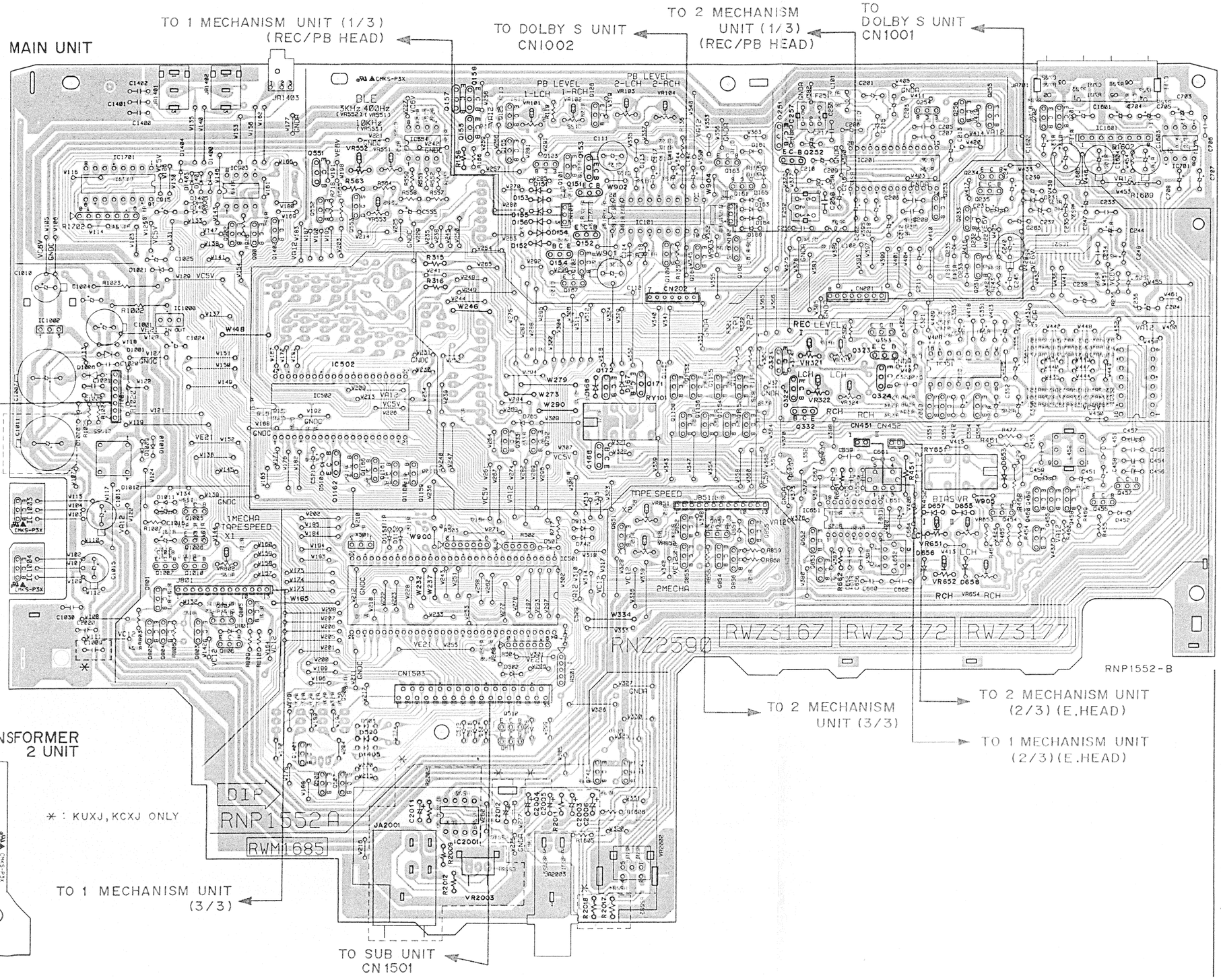
Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
B C E	B C E B C E	Transistor
B C E	B C E B C E	Transistor with resistor
D G S	D G S D G S	Field effect transistor
		Resistor array
		3- terminal regulator

- This diagram is viewed from the mounted parts side.

MAIN UNIT



• This diagram is viewed from the mounted parts side.

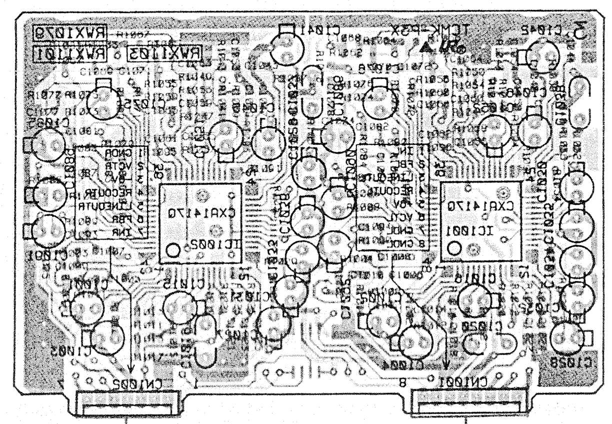


VR101	Q157	Q256	Q702
VR102	Q125	Q126	Q254
VR103	Q158		
VR104	Q155	Q255	Q701
		Q251	IC701
		Q252	
	Q123	Q163	Q234
VR551	Q165	Q161	Q235
	Q153	Q151	
VR552	Q101	Q253	IC1601
	Q551		
	IC1701	IC554	IC201
	IC903	IC101	
VR553	Q552	Q553	Q233
	Q152		
	Q902	Q901	Q1402
	Q154	IC551	
	Q162		
	Q102	Q109	Q164
	Q167		Q231
	IC1002		
	IC1008		Q353
VR323	Q321	Q323	
VR324	Q322	Q1151	Q1155
VR321	Q324	Q1153	Q1157
VR322		IC351	IC352
	IC502	Q332	Q352
	Q171	Q351	Q354
	Q172	Q1154	
	Q1158	Q1156	
	Q1162	Q1152	
	Q333	Q762	
	Q168		
VR851	Q1166	Q1160	Q457
VR653	Q1161	Q1159	Q459
VR802	Q1005	Q454	Q455
VR852	IC1003	Q460	IC651
VR651	Q1006		Q458
VR654	IC1004	Q851	Q456
VR652	Q1007		
	Q1010	Q852	Q857
	Q801	Q853	Q854
	IC501	Q855	Q652
	Q802	Q856	Q653
	Q804	Q807	
	Q806	Q803	
		Q805	
	Q1401	Q512	Q742
	Q508	Q511	Q741
	Q507		
	IC2001		
VR2002			
VR2003			

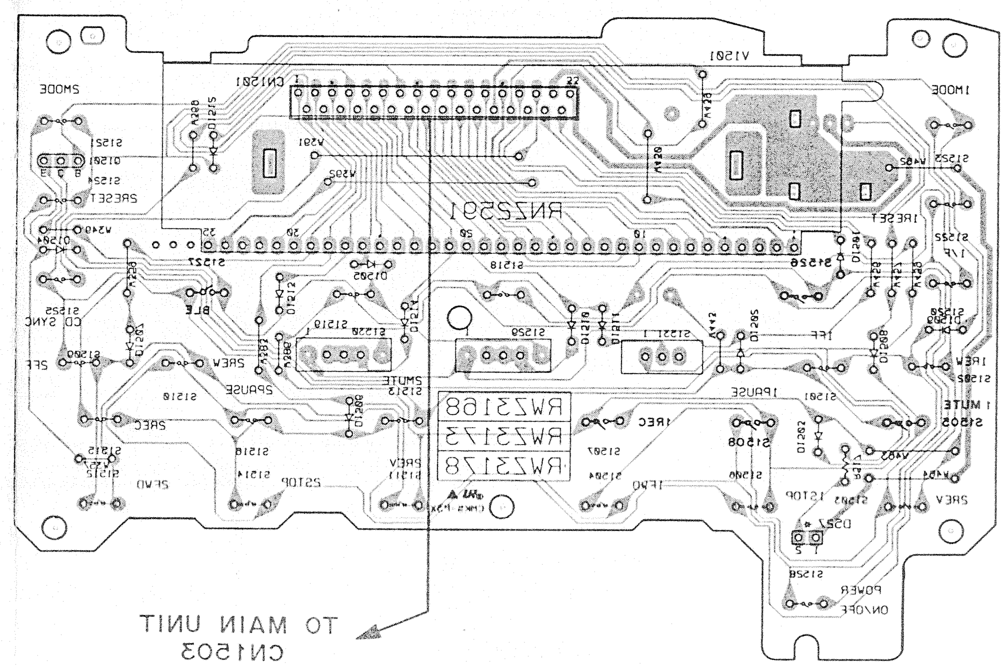
2.4 PCB CONNECTION DIAGRAM

- This diagram is viewed from the gray colored foil side.
- This PCB is double sided.

DOLBY S UNIT



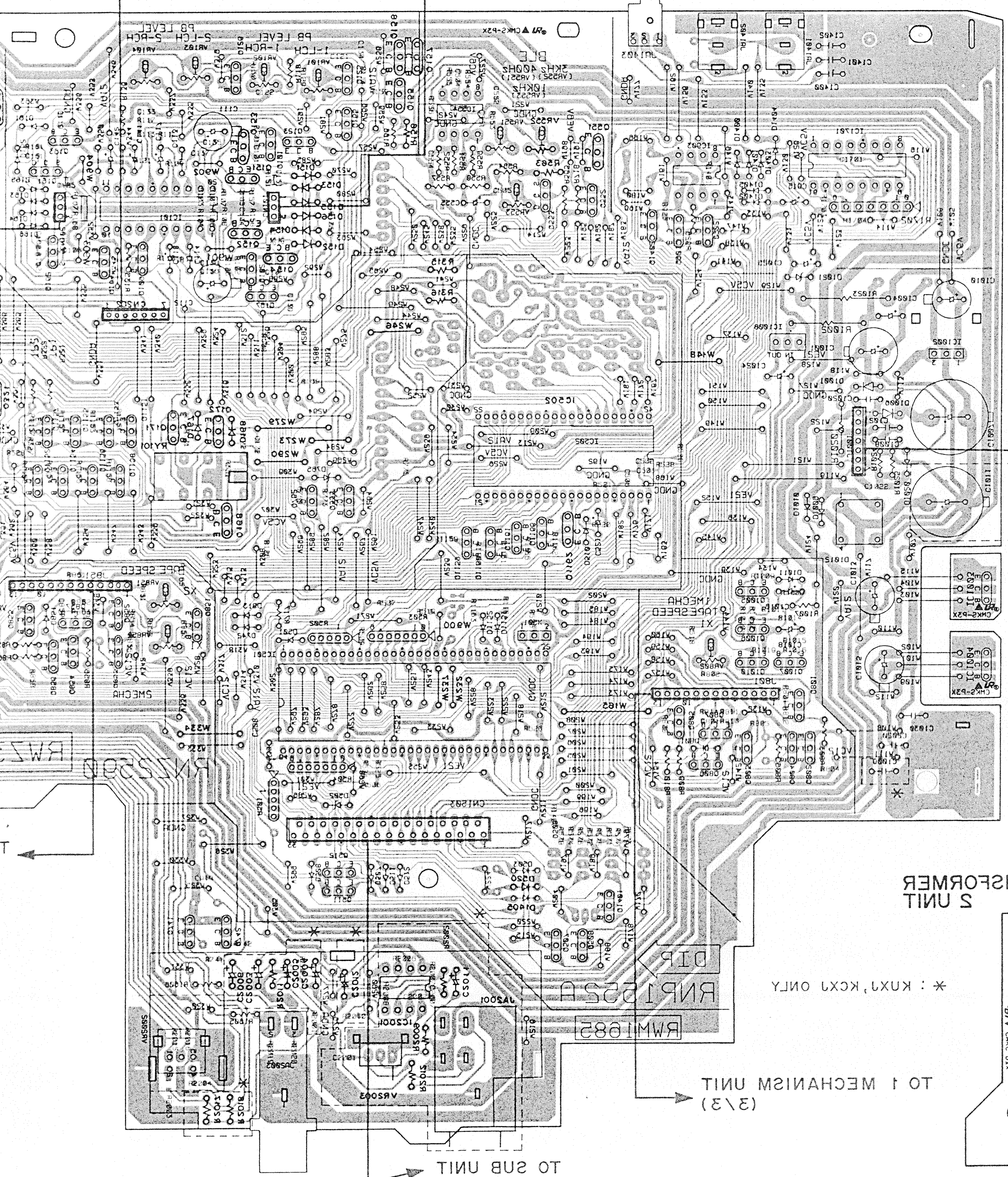
SUB UNIT



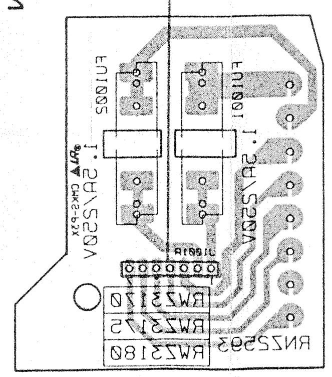
- This diagram is viewed from the foil side.

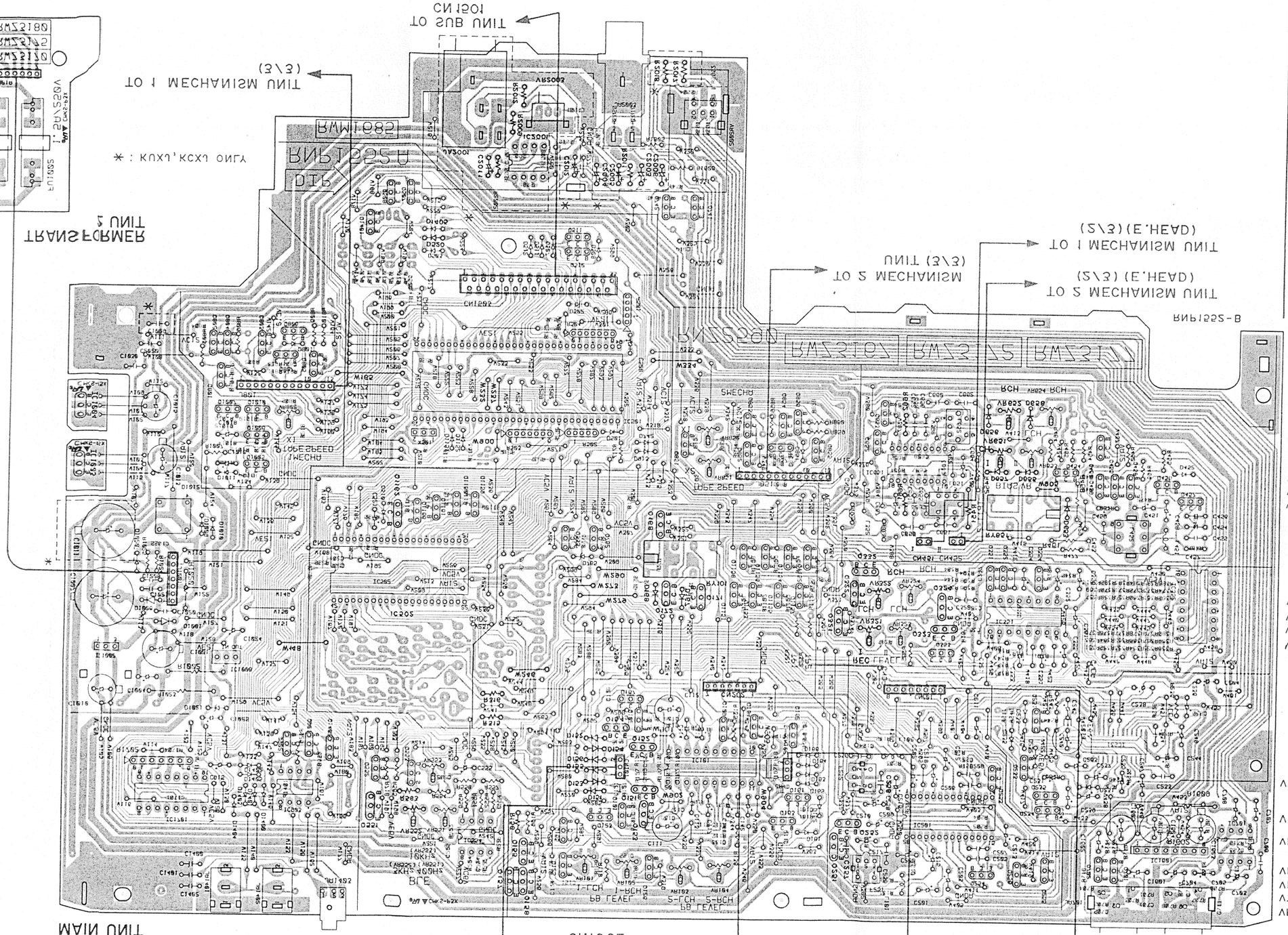
- This diagram is viewed from the foil side.

MAIN UNIT



TRANSFORMER 2 UNIT





• This diagram is viewed from the foil side.

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